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YACOB, SISAY	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/779,429	BOAZ, JON A.	
	Examiner	Art Unit	
	Sisay Yacob	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 March 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1 This communication is in response to applicant's amendment to a first non-final office action, which was filed March 12, 2007.

2 Amendments and arguments to pending rejected claims 1-42 have been entered and made of record in the application of Boaz for "Automated meter reading system, communication and control network for automated meter reading, meter data collector, and associated method" filed on February 13, 2004.

Claims 1-3, 5, 6, 11-13, 15, 16, 21, 23, 24, 31-33, 35 and 37 are amended.

Claim 10 is as previously presented.

Claims 4, 7-10, 14, 17-20, 22, 25-30, 34, 36 and 38-42 are same as originally filed.

Claims 1-42 are pending.

Response to Arguments

3 Applicant's amendments and arguments with respect to rejected claims 1-42 have been fully considered.

Applicant's arguments with respect to rejected claims 26-30 have been fully considered, but are not persuasive in view of the rejection cited below in their respective

rejection section. The prior arts presented in the earlier office action have been used herein with further explanation, in account of the argument presented by the applicant, to further address applicant concern and to clearly show how the limitation of the claims are met by the same.

Furthermore, new grounds of rejections are necessitated by applicant's amendments.

4 On Pages 18, 23 and all subsequent applicant's argument with respect to the applicant's argument with respect to the combined prior arts on record, as they are applied to reject independent claim 26 and dependent claims 27-30 failing to disclose, teach or suggest the limitation are addressed in paragraphs below.

5 As it was cited in the previous office action dated on September 07, 2006, Belski et al., discloses a method of collecting utility meter usage data (Col. 4, lines 52-64), the method comprising sensing meter usage data from each of a plurality of utility meters positioned remote from each other (Col. 5, lines 2-31; Figure 3), collecting utility usage data by each of a plurality of meter data collectors positioned adjacent each of the plurality of utility meters (Col. 5, lines 2-31), determining a polling sequence of communication signal between a remote host computer and each of the plurality of meter data collectors (Col. 5, lines 32-41), polling each of the plurality of meter data collectors with the polling sequence by the host computer positioned remote from the plurality of meter data collectors (Col. 12, lines 36-67), and transmitting meter usage

data to the host computer from each of the plurality of meter data collectors in responsive to the polling signal by the host computer (Col. 13, line 1 - Col. 14, line 45).

6 Durrant et al., discloses a method for a meter reading comprising a plurality of utility meters reading collectors each one positioned remote from the other and host computer, that are adapted to be in communication with each other the host computer (Col. 2, lines 30-36; Col. 3, lines 18-67; Col. 4, lines 1-67; Col. 5, lines 66-67; Col. 6, lines 1-18; Col. 7, lines 28-55; See figures 2 and 4).

7 Applicant's argument with respect to claims 1-25 and 31-42 have been fully considered, but are moot in view of the new ground(s) of rejections are necessitated by applicant's amendments.

Rejections - 35 USC § 103

8 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9 The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10 Claims 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent of Belski et al., (6,657,552 B2) in view of US Patent of Durrant et al., (7,061,924 B1).

11 As to claim 26, Belski et al., discloses a method of collecting utility meter usage data (Col. 4, lines 52-64), the method comprising sensing meter usage data from each of a plurality of utility meters positioned remote from each other (Col. 5, lines 2-31; Figure 3), collecting utility usage data by each of a plurality of meter data collectors positioned adjacent each of the plurality of utility meters (Col. 5, lines 2-31), determining a polling sequence of communication signal between a remote host computer and each of the plurality of meter data collectors (Col. 5, lines 32-41), polling each of the plurality of meter data collectors with the polling sequence by the host computer positioned remote from the plurality of meter data collectors (Col. 12, lines 36-67), and transmitting meter usage data to the host computer from each of the plurality of meter data collectors in responsive to the polling signal by the host computer (Col. 13, line 1 - Col. 14, line 45).

However, Belski et al., does not expressly disclose the polling by the host computer and the transmission by the meter data collectors being over a preferred polling sequence route that is responsive to the strength of communication signal.

Durrant et al., discloses a method for a meter reading comprising a plurality of utility meters reading collectors each one positioned remote from the other and host computer, that are adapted to be in communication with each other the host computer (Col. 2, lines 30-36; Col. 3, lines 18-67; Col. 4, lines 1-67; Col. 5, lines 66-67; Col. 6, lines 1-18; Col. 7, lines 28-55; See figures 2 and 4).

It would have been obvious to one ordinary skill in the art to, at the time of the invention, to modify the automated meter reading network system of Belski et al., by incorporating the plurality of meter data collectors being adapted to be in communication with each other and the host computer, as disclose by Durrant et al., in order to have a method for an automated meter reading network system the polling by the host computer and the transmission by the meter data collectors being over a preferred polling sequence route that is responsive to the strength of communication signal, because Durrant et al., discloses a meter reading network system and method that employs software control communication protocols, that poll's the meter data collectors based on a table that specify a polling sequence route, wherein the plurality of meter data collectors receive the command and transmit the meter usage data to the host computer either directly or through other meter data collectors by getting a . One skilled in the art would recognize Durrant et al., system helps reduces the line-of-site of the communication network and it is well known and widely used in the communication field.

12 As to claim 27, Durrant et al., discloses wherein the autosequencer updates the preferred communication sequence path to allow the preferred communication sequence path to vary over time (Col. 6, lines 54-61).

13 As to claim 28, Durrant et al., discloses wherein the plurality of meter data collectors include a first meter data collector (Item 406 of figure 4), a second meter data collector in communication with the first meter data collector (Item 404 of figure 4), and a third meter data collector in communication with at least one of the first and second meter data collectors (Item 410 of figure 4), wherein the first meter data collector is positioned remote from the host computer to thereby have a greater signal strength than the second meter data collector and the third meter data collector, wherein the second meter data collector is positioned remote from host computer to thereby have a greater signal strength than the third meter data collector, and wherein the network software further includes a raking router to collect meter usage data from the first meter data collector responsive to polling received from the host computer and to rakingly collect data from each of the second and third meter data collectors responsive to the polling so that meter usage data is collected from each of the first, second, and third meter data collectors responsive to polling the first meter data collector and routed to the host computer (Col. 5, lines 1-67; Col. 6, lines 1-67).

14 As to claim 29, Belski et al., discloses wherein at least one of the plurality of meter data collector is positioned within at least one of the following the same housing

as at least one of the plurality of utility meters, a separate housing positioned closely adjacent at least one of the plurality of utility meters, and a separate housing positioned closely adjacent a subset of the plurality of utility meters (See figures 1-3).

15 As to claim 30, Belski et al., discloses wherein the host computer further includes memory having a meter data collector database associated therewith to thereby store meter collector data associated with each of the plurality of meter data collectors, the meter collector data including collector identification, collector physical address, and strength of signal between collectors (Col. 7, lines 1-16).

16 Claims 1-5, 7-15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent of Belski et al., (6,657,552 B2) in view of US Patent of Partyka (6,731,223 B1).

17 As to claims 1 and 11, Belski et al., discloses an automated meter reading network system (Col. 1, lines 11-15) comprising a plurality of utility meters each one positioned remote from the other ones of the plurality of utility meters (Col. 1, lines 66-67; Col. 2, lines 1-4, 14-26; Figure 3), a plurality of sensors adapted to be interfaced with each of the plurality of meters (abstract), each positioned remote from another one of the plurality of utility meters (Items E, G and W of figure 3), so that at least one of the plurality of sensors interfaces with and is positioned adjacent at least one of the plurality of meters to thereby sense utility usage data from each of the plurality of meters (Col. 2,

lines 14-20; Col. 4, lines 45-64; Col. 5, lines 1-51), a communication network (Col. 5, lines 22-31; Col. 6, lines 53-60), a plurality of meter data collectors positioned to collect utility usage data from each of the plurality of sensors so that at least one of the plurality of meter data collectors is positioned adjacent at least one of the plurality of utility meters (Col. 4, lines 60-64; Col. 5, lines 11-31, 46-47) and in communication with at least one of the plurality of sensors which interfaces with the at least one of the plurality of utility meters (See figures 1-3), the plurality of meter data collectors also being adapted to be positioned in communication through the communication network so that each of the plurality of meter data collectors defines one of a plurality of communication nodes in a communication network (Items CDB and NCS of figure 3), a communication node in the communication network and the plurality of meter data collectors defines a plurality of communication nodes in the network (Col. 5, lines 22-32; Col. 6, lines 20-23), and a host computer (master station) positioned remote from the plurality of meter data collectors at a utility central station and in communication with each of the plurality of meter data collectors in the communication network so that each one of the plurality of meter data collectors are adapted to communicate with the host computer (Col. 6, lines 1-67; Col. 7, lines 1-39).

However, Belski et al., does not disclose each of the plurality of meter data collectors being adapted to communicate with meter data collectors in the communication network, and positioned to determine a preferred polling sequence route responsive at least in part to a strength of communication signal between the host computer and each of the plurality of meter data collectors, and positioned to determine

a respective preferred communication sequence path to the host computer for each respective polled meter data collector to thereby reduce line-of-site communication problems between each of the plurality of meter data collectors and the host computer.

Partyka discloses a host computer (Central Monitoring Facility) positioned remote from the plurality of meter data collectors at a utility central station that is in communication with each of the plurality of meter data collectors in the communication network, each one of the plurality of meter data collectors are adapted to communicate with each other, and positioned to determine a respective preferred communication sequence path to and from the host computer for each respective polled meter data collector to thereby reduce line-of-site communication problems between each of the plurality of meter data collectors and the host computer(Col. 3, lines 8-26; Col. 5, lines 17-40; Col. 9, line 59 – Col. 10, line 5; Figures 2a-c and 3).

It would have been obvious to one ordinary skill in the art to, at the time of the invention, to modify the automated meter reading network system of Belski et al., by incorporating the plurality of meter data collectors being adapted to be in communication with each other and the host computer, as disclose by Partyka, in order to have an automated meter reading network system comprising a plurality of utility meters each one positioned remote from the other, a communication network adapted to be positioned in communication with each other through the communication network to thereby reduce line-of-site communication problems between each of the plurality of communication nodes and the host computer, because Partyka discloses a meter reading network system and method, where the plurality of meter data collectors receive

the command and transmit the meter usage data to the host computer either directly or through other meter data collectors, wherein the signal is routed based on the signal strength and reduced line-of-site between the meter data collectors (telemetry system 100) and it is well known and the host computer (central monitoring facility 160).

18 As to claims 2 and 12, Partyka discloses wherein each of the plurality of meter data collectors (Items 230 of figure 2b) includes a collector transceiver (Items 231 and 232 of figure 2b) positioned to transmit data to the host computer (Item 160 of figure 2b) and to other ones of the plurality of meter data collectors through the communication network and (Figures 2a, c and 3) to receive data from the computer and from the other ones of the plurality of meter data collectors through the communication network and a collector controller positioned to control collecting of utility usage data and the transmitting and receiving of data to and from the collector transceiver (Col. 1, lines 43-63).

19 As to claims 3 and 13, Partyka discloses wherein the host computer includes a host transceiver positioned to transmit data to and receive data from each of the plurality of communication nodes and a host controller positioned to control collecting of utility usage data from each of the plurality of communication nodes, transmitting data to each of the plurality of communication nodes through the host transceiver, and receiving data from each of the plurality of communication nodes through the host transceiver (Col. 5, lines 26-31; Item 160).

20 As to claims 4 and 14, Partyka discloses wherein each collector (Item 230 of figure 2b) controller of the plurality of meter data collectors (Item 201 of figure 2b and 4) and the host controller (Item 160 of figure 2b) include controller software associated with the controller and having a network data communication protocol, wherein the network data communication protocol includes a preselected application layer, and wherein the communication network comprises a radio frequency communication network (Col. 13, line 34 - Col. 14, line 18).

21 As to claims 5 and 15, the combination of Belski et al., and Partyka disclose wherein the radio frequency communication network has a frequency in the range of 850-1000 mega-hertz (Col. 22, lines 56-59 of Belski et al.), wherein the frequency continuously changes between a different one of a plurality of preselected frequencies between complete data packet transmissions to thereby define frequency hopping (Col. 11, line 59 - Col. 12, line 12 of Partyka), wherein the controller software of the host controller initiates polling of the plurality of meter data collectors through the frequency hopping within the communications network (Col. 15, lines 56-67 of Partyka), and wherein each of the plurality of meter data collectors responds to the polling by the host controller through the frequency hopping within the communications network along the respective preferred communication path (Col. 3, lines 8-26; Col. 5, lines 17-40 of Partyka).

22 As to claims 8 and 18 Partyka discloses wherein the plurality of meter data collectors include a first meter data collector (Item 200-1 of figure 2a; Item 231-1 of

figure 3), a second meter data collector in communication with the first meter data collector (Item 200-2 of figure 2a; Item 231-2 of figure 3), and a third meter data collector in communication with at least one of the first and second meter data collectors (Item 200-3 of figure 2a; Item 231-4 of figure 3), wherein the first meter data collector is positioned remote from the host computer (Item 160 of figure 2a) to thereby have a greater signal strength than the second meter data collector and the third meter data collector, wherein the second meter data collector is positioned remote from host computer to thereby have a greater signal strength than the third meter data collector, and wherein the network software further includes a raking router to collect meter usage data from the first meter data collector responsive to polling received from the host computer and to rakingly collect data from each of the second and third meter data collectors responsive to the polling so that meter usage data is collected from each of the first, second, and third meter data collectors responsive to polling the first meter data collector and routed to the host computer (Col. 5, line 55- Col. 6, line 6; Col. 8, line 12 – Col. 10, line 50).

23 As to claims 9 and 19, Partyka discloses wherein at least one of the plurality of meter data collector is positioned within at least one of the following the same housing as at least one of the plurality of utility meters, a separate housing positioned closely adjacent at least one of the plurality of utility meters, and a separate housing positioned closely adjacent a subset of the plurality of utility meters (Figures 1b-3 of Partyka).

24 As to claims 10 and 20, Partyka discloses a host computer (central monitoring facility 160), it is inherent that the central monitoring facility, wherein the host computer further includes memory having a meter data collector database associated therewith to thereby store meter collector data associated with each of the plurality of meter data collectors, the meter collector data including collector identification, collector physical address, and strength of signal between collectors (Abstract; Col. 5, lines 16-31).

25 Claims 6, 7, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent of Belski et al., (6,657,552 B2) in view of US Patent of Partyka (6,731,223 B1) and further in view of US Patent forget (3,806, 875).

26 As to claims 6 and 16, the combination of Belski et al., and Partyka disclose wherein the network software includes initiating polling of the plurality of meter data collectors whereby each of the plurality of meter data collectors is individually attempted to be polled by the host computer to determine a strength of communication signal between the host computer and each of the plurality of meter data collectors, wherein each of the plurality of meter data collectors also attempt to communicate with each other responsive to the polling to determine a strength of communication signal between one of the plurality of meter data collectors and another one of the plurality of meter data collectors, and wherein the polling further determines a communication sequence to each of the plurality of meter data collectors responsive to the strength of communication signal between the host computer and each of the plurality of meter

data collectors and responsive to the strength of communication signal between each of the plurality of meter data collectors to define the preferred communication sequence path to each of the plurality of meter data collectors from the host computer(abstract; Col. 1, lines 11-15, 66-67; Col. 2, lines 1-4, 14-26; Col. 4, lines 45-64; Col. 5, lines 1-51; Col. 6, line 1 - Col. 7, line 39; Figures 1-3 of Belski et al., and Col. 3, lines 8-26; Col. 5, lines 17-40; Col. 9, line 59 – Col. 10, line 5; Figures 2a-c and 3 of Partyka).

However, the combination of Belski et al., and Partyka does not expressly disclose the network software that includes an auto sequencer.

Georget discloses a system for transmitting utility meter data, wherein the network that includes an auto sequencer (automatic reading sequence) to initiate polling of the plurality of meter data collectors (Col. 8, lines 25-43).

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the combination of Belski et al., and Partyka, in order to have a wherein the network software includes an autosequencer to initiate polling of the plurality of meter data collectors whereby each of the plurality of meter data collectors is individually attempted to be polled by the host computer, because Georget discloses a system with auto sequencer (automatic reading sequence) that polls and reads all meters sequentially or may be modified to poll and read a selected ones and Partyka discloses determining a strength of communication signal between the host computer and each of the plurality of meter data collectors, wherein each of the plurality of meter data collectors also attempt to communicate with each other responsive to determine a

strength of communication signal between one of the plurality of meter data collectors and another one of the plurality of meter data collectors.

27 As to claims 7 and 17, it would have been obvious to one skilled in the art to have an automated meter reading network system, wherein the autosequencer updates the preferred communication sequence path to allow the preferred communication sequence path to vary over time, because Georget discloses a system with auto sequencer (automatic reading sequence) that may be modified to poll and read a selected one of the plurality of meters Col. 8, lines 25-43) and Partyka discloses determining a strength of communication signal between the host computer, wherein the updates the preferred communication sequence path to allow the preferred communication sequence path to vary over time based on signal strength (Col. 6, lines 54-61).

28 As to independent claims 26, 31, 35 and 37 and dependent claims 27-30, 32 and 38-42 they are directed to a method drafted in analogy to system and device of claims 1-20, therefore the subject-matter of these claims is also not novel in view of the above mentioned prior arts.

29 Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent of Belski et al., (6,657,552 B2) in view of US Patent of Burnn et al., (6,333,975 B1).

30 As to claim 21, Belski et al., discloses a meter data collector to interface with a utility meter (Col. 4, lines 60-64; Col. 5, lines 16-22, 46-47), the meter data collector including a stationary housing adapted to contain a utility meter (i.e., "the CDB which maybe a stand alone device or may be integrated within or adjacent a meter"; See Col. 4, lines 56-64), a sensor positioned to sense meter usage data from the utility meter, a transceiver associated with the housing to transmit meter usage data from the meter data collector (Col. 4, lines 56-64; Col. 5, lines 11-31, 46-47; See figures 1-3) and to receive communication remote from the stationary housing in (Col. 6, lines 21-26, 61-67See figure 3), a collector positioned within the housing to control data communication to and from the transceiver and to provide bi-directional radio frequency communication (Col. 5, lines 2-10, 18-31), and to control collecting of meter usage data from the sensor responsive to a remote command, and a memory positioned within the peer stationary housing and associated with and in communication with the controller to store data therein, the memory including network software to communicate the meter usage data remotely through a communication network (Col. 5, lines 11-67; Col. 6, lines 1-67).

However, Belski et al., does not expressly disclose the transceiver being high power transceiver and the remote communication being medium to high range.

Burnn et al., discloses a meter reading network system, comprising a plurality of utility meters each one positioned remote from the host and having a high power transceiver and the remote communication being medium to high range (Col. 1, lines 55-59; Col. 2, lines 50-59; Col. 3, lines 5-25; Col. 4, lines 21-31; Col. 4, line 65 - Col. 5, line 11; Figure 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention, to modify the automated meter reading network system of Belski et al., by incorporating the high power transceiver and the remote communication, as disclosed by Burnn et al., in order to have a meter data collector to interface with a utility meter, the meter data collector including a stationary housing adapted to be mounted adjacent a utility meter, a sensor positioned to sense meter usage data from the utility meter, a high power transceiver associated with the housing to transmit meter usage data from the meter data collector and to receive communication remote from the stationary housing in a medium to high range, a collector positioned within the housing to control data communication to and from the high power transceiver and to control collecting of meter usage data from the sensor responsive to a remote command, and a memory positioned within the peer stationary housing and associated with and in communication with the controller to store data therein, the memory including network software to communicate the meter usage data remotely through a communication network, because Burnn et al., discloses automated meter reading network system that employs high power transceiver and having a medium to high remote communication offers a wider transmission range and help minimize the number of repeaters required (Col. 6, lines 45-60).

31 As to claim 22, a system as defined in claim 21, further, Belski et al., discloses wherein the network software includes a preselected network data communication protocol, wherein the network data communication protocol includes a preselected

application layer, and wherein the communication network comprises a radio frequency communication network (Col. 2, lines 60-66; Col. 5, lines 65-67; Col. 6, lines 1-67; Col. 7, lines 1-16).

32 As to claim 23, a meter data collector as defined in claim 22, further, Belski et al., discloses wherein the radio frequency communication network has a frequency in the range of 850-1000 mega-hertz (Col. 22, lines 56-59), wherein the frequency continuously changes between a different one of a plurality of preselected frequencies between complete data packets transmissions to thereby define frequency hopping (Col. lines 17-29; Col. 24, lines 5-9), wherein a remote host computer controller initiates polling of the meter data collector through the frequency hopping within the communications network (Col. 21, lines 9-13), and wherein the collector controller responds to the polling by the host computer controller through the frequency hopping within the communications network (Col. 12, lines 40-44; Col. 12, lines 15-17).

33 Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent of Belski et al., (6,657,552 B2) in view of US Patent of Burnn et al., (6,333,975 B1) and further in view of US Patent of Partyka (6,731,223 B1) and further in view of US Patent of Georget (3,806, 875).

34 As to claim 24, the combination of Belski et al., and Burnn et al., does not expressly disclose wherein the network software includes an autosequencer to initiate

polling by the host computer controller and to initiate polling of at least one of a plurality of the meter data collectors whereby each of the plurality of meter data collectors is individually attempted to be polled by the host computer to determine a strength of communication signal between the host computer and each of the plurality of meter data collectors, and wherein each of the plurality of meter data collectors are positioned to also attempt to communicate with each other responsive to the autosequencer to determine a strength of communication signal between one of the plurality of meter data collectors and another one of the plurality of meter data collectors to thereby assist in determining a preferred communication sequence path to each of the plurality of meter data collectors from the host computer.

Partyka discloses a meter data collector network software that includes initiate polling by the host controller to at least one of a plurality and individually to be polled to determine a strength of communication signal between the host computer and each of the plurality of meter data collectors (Col. 3, lines 8-26; Col. 5, lines 17-40; Col. 9, line 59 – Col. 10, line 5; Figures 2a-c and 3).

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the combination of Belski et al., and Burnn et al., by incorporating the initiating of the polling by the host, as disclosed by Partyka, in order to have the network software includes initiate polling by the host computer controller at least one of a plurality of the meter data collectors to determining a preferred communication sequence path to each of the plurality of meter data collectors from the host computer, because Partyka discloses determining a strength of communication signal between the

host computer and each of the plurality of meter data collectors, wherein each of the plurality of meter data collectors also attempt to communicate with each other responsive to determine a strength of communication signal between one of the plurality of meter data collectors and another one of the plurality of meter data collectors.However, the combination of Belski et al., Burnn et al., and Partyka does not expressly disclose the network software that includes an autosequencer.

Georget discloses a meter data collector for transmitting utility meter data, wherein the network that includes an auto sequencer (automatic reading sequence) to initiate polling of the plurality of meter data collectors (Col. 8, lines 25-43).

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the combination of Belski et al., Burnn et al., and Partyka, in order to have a wherein the network software includes an autosequencer to initiate polling of the plurality of meter data collectors whereby each of the plurality of meter data collectors is individually attempted to be polled by the host computer, because Georget discloses a system with auto sequencer (automatic reading sequence) that polls and reads all meters sequentially or may be modified to poll and read a selected ones and Partyka discloses determining a strength of communication signal between the host computer and each of the plurality of meter data collectors, wherein each of the plurality of meter data collectors also attempt to communicate with each other responsive to determine a strength of communication signal between one of the plurality of meter data collectors and another one of the plurality of meter data collectors.

35 As to claim 25, it would have been obvious to one skilled in the art to have an automated meter data collector, wherein the autosequencer updates the preferred communication sequence path to allow the preferred communication sequence path to vary over time, because Georget discloses a system with auto sequencer (automatic reading sequence) that may be modified to poll and read a selected one of the plurality of meters Col. 8, lines 25-43) and Partyka discloses determining a strength of communication signal between the host computer, wherein the updates the preferred communication sequence path to allow the preferred communication sequence path to vary over time based on signal strength (Col. 6, lines 54-61).

36 Claims 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent of Belski et al., (6,657,552 B2) in view of US Patent of Partyka (6,731,223 B1) and further in view of US Patent of Sollinger (3,806, 875).

37 As to claim 33, Belski et al., discloses a method of collecting utility meter data from a plurality meters each mounted to a different building and each in communication with a respective one of a plurality of meter data collectors defining a plurality of remote collection units (Col. 4, lines 52-64; Col. 5, lines 11-47; See Items E, G and W, Residential part of figure 3), the method comprising transmitting utility meter data from a first remote collection unit of the plurality of utility of remote collection units, and transmitting the utility meter data of the first remote collection unit and the utility meter

data of the second remote collection unit from the second remote collection unit to a host computer (Col. 5, lines 65-67; Col. 6, lines 1-67; Col. 7, lines 1-30).

However, Belski et al., does not expressly disclose the method comprising consolidating the utility meter data of the first remote collection unit with the utility meter data of the second remote collection unit into a same data payload, transmitting utility meter data from a first remote collection unit of the plurality of utility of remote collection units to a second remote collection unit of the plurality of collection units before being transmitted to the host computer.

Partyka discloses a method comprising transmitting utility meter data from a first remote collection unit of the plurality of utility of remote collection units to a second remote collection unit of the plurality of collection units and transmitting utility meter data of the first remote collection unit and utility meter data of the second remote collection unit from the second remote collection unit to a host computer (Col. 3, lines 8-26; Col. 5, lines 17-40; Col. 7, line 18 - Col. 8, line 29; Col. 9, line 59 – Col. 10, line 5; Figures 2a-c and 3).

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the method of Belski et al., by incorporating the method for transmitting utility meter data from a first to a second remote collection unit, as disclosed by Partyka, in order to have a method of collecting utility meter data from a plurality of utility meters each mounted to a different building and each in communication with a respective one of a plurality of meter data collectors defining a plurality of remote collection units, the method comprising transmitting utility meter data

from a first remote collection unit of the plurality of utility of remote collection units to a second remote collection unit of the plurality of collection units, and transmitting utility meter data of the first remote collection unit and utility meter data of the second remote collection unit from the second remote collection unit to a host computer, because Partyka discloses a meter reading network method, where the plurality of meter data collectors receive the command and transmit the meter usage data to the host computer either directly or through other meter data collectors, so that the data reaches the intended target.

However, the combination of Belski et al., and Partyka does not expressly disclose the method comprising consolidating the utility meter data of the first remote collection unit with the utility meter data of the second remote collection unit into a same data payload.

Sollinger discloses a method comprising transmitting utility meter data, wherein different utility meter data are collected, consolidated and transmitted to a host computer (Col. 2, line 8- Col.4, line 10; Items 1, 2, 5 and 14).

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the combination of Belski et al., and Partyka by incorporating the method for transmitting utility meter data from a first to a second remote collection unit, as disclosed by Partyka, in order to have a method of collecting utility meter data from a plurality of utility meters, consolidating the utility meter data of the first remote collection unit with the utility meter data of the second remote collection unit into a same data payload, and transmitting utility meter data of the first remote collection unit and utility

meter data of the second remote collection unit from the second remote collection unit to a host computer, because Partyka discloses a meter reading network method, where the plurality of meter data collectors receive the command and transmit the meter usage data to the host computer either directly or through other meter data collectors, so that the data reaches the intended target and one skilled in the art would recognize consolidating the utility meter data into a same data payload, minimizes power consumption by second remote collection unit or any subsequent remote collection unit by minimizing the number of transmission required to route the data to the host computer. Furthermore, it is conventional in the communication art to consolidate a number of data into a same payload for transmitting to the intended receiver in order to have time saving and cost effective transmission methods.

38 As to claim 34, Partyka discloses the method further comprising transmitting meter data from a third remote collection unit to the first remote collection unit and wherein the utility meter data of the first remote collection unit includes utility meter data from the third remote collection unit (Col. 5, line 55- Col. 6, line6; Figure2a-3).

Conclusion

39 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

40 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sisay Yacob whose telephone number is (571) 272-8562. The examiner can normally be reached on Monday through Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery A. Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sisay Yacob

5/24/2007

S.Y.

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